

Att'y Dkt. No. H-102U.S. App. No: 09/827,557**REMARKS**

In September 16, 2004 Office Action, the Examiner rejected claims 1, 6, 10, 12 and 16 under 35 U.S.C. §112, second paragraph, as being indefinite, rejected claims 1-2, 4-7, 10-13 and 16-17 under 35 U.S.C. §103 as being unpatentable over "Summary Cache: a Scalable Wide-Area Web Cache Sharing Protocol," Proceedings of SIGCOMM '98, (1998: pp254-265) by Fan in view of U.S. Patent No. 4,882,754 to Weaver.

Applicant respectfully traverses the Examiner's rejections under §112. Specifically, the Examiner appears to have been confused regarding the terminology "compressed Bloom filter data array." In the application's specification in the paragraph beginning on the bottom of page 9 and continuing on page 10, the Applicant described "compressed Bloom filters" not as an element having compressed data as an output, but rather, as an element that produces a data array that is optimized to be compressed in a later step. Accordingly, Applicant submits that the claim language "compressed Bloom filter data array" was not indefinite. Since the optimizing aspect is recited elsewhere in the claim, Applicant has amended claims 1, 6, 10, 12 and 16 to clarify this point by deleting the term "compressed," thereby leaving the term "Bloom filter data array."

Applicant respectfully traverses the Examiner's rejection of claims 1-2, 4-7, 10-13 and 16-17 under §103 as obvious over Fan in view of Weaver. In the combination suggested by the Examiner, the Bloom filter of Fan would use a number of hash functions and a data array size to minimize the rate of false positives. The Weaver system would then be used to compress the data produced by the Bloom filter for transmission. As discussed in the application specification at the top of page 11, this would result in the worst choice possible for the Bloom filter parameters. The reason is that Fan assumes a transmission size equal to the data array size and therefore does not teach or suggest taking the compression size into account when selecting the number of hash functions and the data array size.

In contrast, each of independent claims 1, 5, 6 and 10-12 recites the use of a data compression or transmission size in selecting or choosing the number of hash functions and

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the data array size for the Bloom filter. To clarify this point, Applicant has amended these claims to recite a data compression or transmission size different or less than the data array size. Applicant submits that Fan does not contemplate such a situation and provides no teaching or suggestion of optimizing the Bloom filter data array in this manner. Claims 16-17 recite the selection of the number of hash functions and the data array size to optimize a compression size. This distinguishes claims 16-17 from the combination asserted by the Examiner because none of the references cited by the Examiner suggest using the compression size as a factor in selecting the number of hash functions.

***Conclusion***

For at least the foregoing reasons, Applicants respectfully submit that the present patent application is in condition for allowance. An early indication of the allowability of the present patent application is therefore respectfully solicited.

If the Examiner believes that a telephone conference with the undersigned would expedite passage of the present patent application to issue, he is invited to call on the number below.

If any fees are due in connection with this response that are not covered by the attached transmittal sheet, including fees for any necessary extensions of time, such additional fees may be charged to Deposit Account No. 50-2837,

Respectfully submitted,

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